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EP 0 849 296 A3

(12)

EUROPEAN PATENT APPLICATION

- (88) Date of publication A3: 06.05.1999 Bulletin 1999/18
- (43) Date of publication A2: 24.06.1998 Bulletin 1998/26
- (21) Application number: 97122119.7
- (22) Date of filing: 16.12.1997

(51) Int. Cl.⁶: **C08F 290/06**, C08F 2/50, C03C 25/02

(11)

(84) Designated Contracting States:

AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE Designated Extension States:

AL LT LV MK RO SI

- (30) Priority: 20.12.1996 JP 341674/96
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(54) A photocurable resin composition and a method for producing the same

(57) The invention provides a photocurable resin composition which inhibits the deactivation of a bisacylphosphine oxide-series photopolymerization initiator and is useful for coating optical fibers. The photocurable resin composition comprises (A) a polyurethane (meth)acrylate oligomer, (B) an ethylenically unsaturated compound, (C) a bisacylphosphine oxide-series photopolymerization initiator, and (D) a tertiary amine and no tin component. Incorporation of the component (D) inhibits the decomposition and deactivation of the component (C). The component (A) may contain an aliphatic C₁₄₋₄₀ polyol (hydrogenated dimerdiol, 12hydroxystearyl alcohol) as a polyol component. This resin composition is used for a primary coating of a glass fiber or an indirect coating of an optical fiber through the primary layer, the coating layer being cured by light irradiation to provide an optical fiber coated with the resin composition.



EUROPEAN SEARCH REPORT

Application Number

EP 97 12 2119

Category	Citation of document with in of relevant pass	dication, where appropriate, ages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.6)
X	VALET A.: "Zur Wet UV-härtbarer Pulver FARBE + LACK, vol. 102, no. 1, 19 XP002094307 * page 41 *		1-3	C08F290/06 C08F2/50 C03C25/02
X	WO 96 29352 A (DYMA 26 September 1996 * page 17, line 14-	X CORP) 34; examples; table 1	* 1-3	
X	EP 0 262 629 A (BAS * claims; examples	 F AG) 6 April 1988 1-3 * 	1-3	
				TECHNICAL FIELDS SEARCHED (Int.CI.6) C 03C C 08F C 08K C 09J
			,	
	The present search report has i	poon drawn up for all claims	_	
	Place of search	Date of completion of the search	<u> </u>	Examiner
	THE HAGUE	22 February 19		iederich, P
X : part Y : part docu A : tech	ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if combined with anotument of the same category indojcial background -written disclosure	E : earlier patent after the filing her D : document cit L : document cit	ed in the application and for other reason	olished on, or n

2

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 97 12 2119

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22-02-1999

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
WO 9629352		26-09-1996	AU CA EP JP US	4974196 A 2215597 A 0815146 A 10510578 T 5672393 A 5677362 A	08-10-19 26-09-19 07-01-19 13-10-19 30-09-19 14-10-19
EP 0262629	A	06-04-1988	DE HK JP JP SG US	3633436 A 11794 A 1102455 A 2604172 B 136293 G 4868091 A	14-04-1 18-02-1 20-04-1 30-04-1 25-11-1 19-09-1
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